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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/646,293

08/22/2003

George D. Davis

H0001553 C1

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09/10/2004

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EXAMINER

VORTMAN, ANATOLY

ART UNIT

PAPER NUMBER

2835

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/646,293

Applicant(s)

DAVIS ET AL.

Examiner

Anatoly Vortman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 20-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Amendment

1. The submission of the amendment filed on 07/03/04 is acknowledged. At this point claims 1, 3, 4, 7, and 20 are amended. Claims 14-19 and 24-27 have been previously cancelled. Thus, claims 1-13 and 20-23 are pending in the instant application.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-13 and 20-23, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claims 1-13, claim 1 recites that “the resistance element being...thermally isolated therefrom (from thermal actuator)”, and claim 7 recites: “an electrical resistor...thermally isolated therefrom (from thermal actuator)”.

Regarding claims 20-23, claim 20 recites: “a substantially thermally-independent electrically resistive element...thermally decoupled therefrom (from the actuator)”.

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The aforementioned limitations are not supported by the disclosure. Nowhere in the disclosure is specified that said resistive element is thermally isolated (decoupled) from the actuator (see response to arguments below).

Also, regarding claims 3-6, claim 3 recites: "first and second contacts are mutually electrically isolated" The aforementioned limitations are not supported by the disclosure of the present application, since nowhere in disclosure a switch having the aforementioned features is disclosed. For example, Figure 15 depicts a three-terminal switch wherein the first and second contacts (14, 16) are electrically interconnected through electrical resistance (12). Thus, those contacts (14, 16) are not mutually electrically isolated as required by claim 1. The same goes for the remaining two-terminal embodiments as depicted on Fig. 1-8 of the instant application.

3. As to the merits of the claims, all claims of record, as best understood, are rejected for the same reasons as being presented in paragraphs 4 through 7 of the previous non-final Office action.

Response to Arguments

4. Applicant's arguments filed concurrently with the amendment on 07/30/2004 have been fully considered but they are not persuasive.

The Applicant contends that: "the resistance element 12 being thermally isolated from the thermal actuator 18 is fully supported by the Specification wherein the resistor 12 is bonded to an inner surface of the header 24, which spaces it well away from the

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actuator 18. Specification at page 7, lines 20-,21 and Figures 2, 3. Alternatively, the resistor 12 is bonded to the exterior surface 54 of the header 24. Specification at page 8, lines 25-29 and Figures 4 and 5” (see the Response, last paragraph on p. 7 and first paragraph on page 8).

To the contrary, the Examiner believes that the aforementioned statements say nothing about said resistance element being thermally isolated from the actuator. The Applicant’s interpretation is believed to be in error, since as clearly shown for example on Fig. 2 and 3, said resistance element (12) is positioned inside the switch chamber and in close proximity to the actuator (28). Also, as depicted on Fig. 5, 6, 14, and 15, there is nothing to suggest that resistance element(s) (12, 144) are thermally isolated from the actuator (28). The fact that said resistance elements are mounted on the outside of the switch does not preclude the thermal coupling of said resistance elements with the actuator, which can be accomplished through the header (24). The disclosure failed to explicitly teach what Applicant believes is an important feature of the invention, i.e. that the resistance element(s) are thermally isolated (decoupled) from the actuator.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anatoly Vortman whose telephone number is 571-272-2047. The examiner can normally be reached on Monday-Friday, between 10:00 am and 6:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Lynn Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

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Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anatoly Vortman
Primary Examiner
Art Unit 2835

AV

A handwritten signature in cursive script, appearing to read "A. Vortman", followed by a horizontal line.